WHAT IS CLAIMED IS:

1. A noncontact type IC card, receiving a power wave sent from an external device to generate an operating voltage, and writing data to a memory with the generated operating voltage, the IC card comprising:

a voltage detecting section which detects a voltage level of the operating voltage generated from the power wave received from the external device;

a write executing section which executes the writing of the data to the memory if the voltage level detected by the voltage detecting section is a level at which normal writing to the memory can be performed; and

a control section which detects by the voltage detecting section the voltage level of the operating voltage obtained after the writing of the data to the memory executed by the write executing section is terminated, and which executes again the writing of the data to the memory if the detected voltage level of the operating voltage is not a predetermined voltage level.

2. A noncontact type IC card, receiving a power wave sent from an external device to generate an operating voltage, and writing data to a memory with the generated operating voltage, the IC card comprising:

a voltage detecting section which detects

a voltage level of the operating voltage generated from the power wave received from the external device;

a first checking section which detects the voltage level of the operating voltage by the voltage detecting section and checks whether or not the detected voltage level of the operating voltage is a predetermined voltage level, when the writing of the data to the memory is started;

a write executing section which executes the writing of the data to the memory if the first checking section determines that the detected voltage level of the operating voltage is the predetermined voltage level;

a second checking section which detects the voltage level of the operating voltage obtained after the writing of the data to the memory is terminated, by the voltage detecting section, and which checks whether or not the detected voltage level is a predetermined voltage level; and

a control section which executes again processings of the first checking section, the write executing section and the second checking section after waiting for a predetermined period of time, if the first checking section determines that the voltage level of the operating voltage is not the predetermined voltage level or if the second checking section determines that the voltage level of the operating voltage is not the

predetermined voltage level.

3. The IC card according to claim 2, wherein if the control section executes again the checking of the first checking section or the second checking section after waiting for the predetermined period of time and determines that the voltage level of the operating voltage is not the predetermined voltage level, the control section terminates the writing of the data.

4. The IC card according to claim 2, wherein the predetermined period of time in which the control section waits can be arbitrarily changed.

5. The IC card according to claim 2, wherein the control section repeats the processings of the first checking section, the write executing section and the second checking section at a preset number of times.

6. The IC card according to claim 3, wherein the control section repeats the processings of the first checking section, the write executing section and the second checking section at the preset number of times.

7. A noncontact type IC card comprising:

a rewritable nonvolatile memory;

an antenna which transmits data to an external device or receives the data therefrom;

a power generating section which receives a power wave transmitted from the external device, via the antenna, and generates an operating voltage with the received power wave;

a voltage detecting section which detects a voltage level of the operating voltage generated by the power generating section;

a first checking section which detects by the voltage detecting section the voltage level of the operating voltage generated by the power generating section and checks whether or not the detected voltage level of the operating voltage is a predetermined voltage level, when a write command of the data from the external device to the nonvolatile memory is received via the antenna;

a write executing section which executes the writing of the data to the nonvolatile memory if the first checking section determines that the detected voltage level of the operating voltage is the predetermined voltage level;

a second checking section which detects the voltage level of the operating voltage obtained after the writing of the data to the nonvolatile memory executed by the write executing section is terminated, by the voltage detecting section, and which checks whether or not the detected voltage level is a predetermined voltage level; and

a control section which executes again processings of the first checking section, the write executing section and the second checking section after waiting for a predetermined period of time, if the first

checking section determines that the voltage level of the operating voltage is not the predetermined voltage level or if the second checking section determines that the voltage level of the operating voltage is not the predetermined voltage level.

8. The IC card according to claim 7, wherein if the control section executes again the checking of the first checking section or the second checking section after waiting for the predetermined period of time and determines that the voltage level of the operating voltage is not the predetermined voltage level, the control section terminates the writing of the data.

9. The IC card according to claim 7, wherein the predetermined period of time in which the control section waits can be arbitrarily changed.

10. The IC card according to claim 7, wherein the control section repeats the processings of the first checking section, the write executing section and the second checking section at a preset number of times.

11. The IC card according to claim 8, wherein the control section repeats the processings of the first checking section, the write executing section and the second checking section at a preset number of times.

12. A noncontact type IC card system comprising an external device which requests writing of data and a noncontact type IC card which performs the writing of the data in response to the request from the external

device,

the external device comprising:

a sending section which sends a power wave for operations to the IC card; and

a transmitting section which transmits a write command to the IC card receiving the power wave for operations sent from the sending section,

the IC card comprising:

a voltage detecting section which detects a voltage level of an operating voltage generated from the power wave received from the external device;

a first checking section which detects by the voltage detecting section the voltage level of the operating voltage and checks whether or not the detected voltage level of the operating voltage is a predetermined voltage level, when the writing of the data to the memory is started in response to the write command received from the external device;

a write executing section which executes the writing of the data to the memory if the first checking section determines that the detected voltage level of the operating voltage is the predetermined voltage level;

a second checking section which detects the voltage level of the operating voltage obtained after the writing of the data to the memory is terminated, by the voltage detecting section, and which checks whether

or not the detected voltage level is a predetermined voltage level; and

a control section which executes again processings of the first checking section, the write executing section and the second checking section after waiting for a predetermined period of time, if the first checking section determines that the voltage level of the operating voltage is not the predetermined voltage level or if the second checking section determines that the voltage level of the operating voltage is not the predetermined voltage level.

13. The system according to claim 12, wherein the IC card further comprises a setting section which sets the predetermined period of time in which the control section waits, in accordance with data prestored in the memory when the IC card starts by receiving the power wave for operations sent from the sending section of the external device.

14. The system according to claim 12, wherein the transmitting section of the external device transmits data representing the predetermined period of time in which the control section of the IC card waits in the processing, together with the data write command, and

the IC card further comprises a setting section which sets the predetermined period of time in which the control section waits in the processing, in accordance with data transmitted from the transmitting

section of the external device together with the data write command.

15. The system according to claim 12, wherein the IC card further comprises a setting section which sets number of times at which the processings of the first checking section, the write executing section and the second checking section are repeated in accordance with data prestored in the memory when the IC card starts by receiving the power wave for operations sent from the sending section of the external device, and

the control section repeats the processings of the first checking section, the write executing section and the second checking section at the number of times which is set by the setting section.

16. The system according to claim 12, wherein the transmitting section of the external device transmits data indicating the number of times at which the IC card repeats the processings of the first checking section, the write executing section and the second checking section, together with the data write command,

the IC card further comprises a setting section which sets the number of times at which the processings of the first checking section, the write executing section and the second checking section are repeated in accordance with the data transmitted from the transmitting section of the external device together with the data write command, and

the control section repeats the processings of the first checking section, the write executing section and the second checking section at the number of times which is set by the setting section.

17. A noncontact type IC card system comprising an external device which requests writing of data and a noncontact type IC card which performs the writing of the data in response to the request for the writing of data from the external device,

the external device comprising:

a sending section which sends a power wave for operations to the IC card; and

a transmitting section which transmits a data write command to the IC card receiving the power wave for operations sent from the sending section,

the IC card comprising:

a rewritable nonvolatile memory;

an antenna which transmits data to an external device or receives the data therefrom;

a power generating section which receives a power wave transmitted from the external device, via the antenna, and generates an operating voltage with the received power wave;

a voltage detecting section which detects a voltage level of the operating voltage generated by the power generating section;

a first checking section which detects by the

voltage detecting section the voltage level of the operating voltage generated by the power generating section and checks whether or not the detected voltage level of the operating voltage is a predetermined voltage level, when a write command of the data from the external device to the nonvolatile memory is received via the antenna;

a write executing section which executes the writing of the data to the nonvolatile memory if the first checking section determines that the detected voltage level of the operating voltage is the predetermined voltage level;

a second checking section which detects the voltage level of the operating voltage obtained after the writing of the data to the nonvolatile memory executed by the write executing section is terminated, by the voltage detecting section, and which checks whether or not the detected voltage level is a predetermined voltage level; and

a control section which executes again processings of the first checking section, the write executing section and the second checking section after waiting for a predetermined period of time, if the first checking section determines that the voltage level of the operating voltage is not the predetermined voltage level or if the second checking section determines that the voltage level of the operating voltage is not the

predetermined voltage level.

18. The system according to claim 17, wherein the IC card further comprises a setting section which sets the predetermined period of time in which the control section waits, in accordance with data prestored in the memory when the IC card starts by receiving the power wave for operations sent from the sending section of the external device.

19. The system according to claim 17, wherein the transmitting section of the external device transmits data representing the predetermined period of time in which the control section of the IC card waits in the processing, together with the data write command, and

the IC card further comprises a setting section which sets the predetermined period of time in which the control section waits in the processing, in accordance with data transmitted from the transmitting section of the external device together with the data write command.

20. The system according to claim 17, wherein the IC card further comprises a setting section which sets number of times at which the processings of the first checking section, the write executing section and the second checking section are repeated in accordance with data prestored in the memory when the IC card starts by receiving the power wave for operations sent from the sending section of the external device, and

the control section repeats the processings of the first checking section, the write executing section and the second checking section at the number of times which is set by the setting section.

21. The system according to claim 17, wherein the transmitting section of the external device transmits data indicating the number of times at which the IC card repeats the processings of the first checking section, the write executing section and the second checking section, together with the data write command,

the IC card further comprises a setting section which sets the number of times at which the processings of the first checking section, the write executing section and the second checking section are repeated in accordance with the data transmitted from the transmitting section of the external device together with the data write command, and

the control section repeats the processings of the first checking section, the write executing section and the second checking section at the number of times which is set by the setting section.